

II. REJECTION OF CLAIMS 1-5 UNDER 35 U.S.C. § 112(2)

Page 2 of the Office Action rejects claim 1 under 35 U.S.C. § 112, second paragraph as being indefinite, and claims 2-5 based on their dependency on claim 1.

Claim 1 is amended to overcome the rejection. Withdrawal of the rejections is respectfully requested.

III. REJECTION OF CLAIM 1 UNDER 35 U.S.C. § 102

Page 3 of the Office Action rejects claim 1 under 35 U.S.C. § 102(b) as being anticipated by Agonafer et al., U.S. Patent No. 5,664,687, (Hereinafter "Agonafer").

Agonafer relates to a system in which an electronic package is modeled so that thermal analysis of the package can be applied.

Claim 1 (as amended) recites, "a converter for **converting** the printed circuit board into one or more models **based on attributes preliminarily added to the component.**" (emphasis added).

Agonafer extracts information from the printed circuit board design system and outputs the text file (geometrical properties and non-geometrical properties, such as material properties, of each part).

Agonafer does not convert a printed circuit board into one or more models based on attributes preliminarily added to the component. The rejection cites Agonafer, column 5, lines 60 – column 6, line 15, as disclosing this feature. However, the cited portion relates to extracting information from the PCB design tool. This extracted information is then outputted as a text file. Further, "one or more models" is also not disclosed in Agonafer. As such, converting . . . into one or more models based on attributes preliminary added to the component is also not disclosed in Agonafer.

Further, Agonafer does not disclose a component on a printed board and . . . a mounting design which includes a cabinet. No cabinet is disclosed in Agonafer. While this limitation may appear in the preamble, the use of "the component" in the body refers to the preamble.

Since the above features are not disclosed in Agonafer, claim 1 cannot be anticipated

by Agonafer. Withdrawal of the rejection is respectfully requested.

IV. NEW CLAIMS 6-10

New claims 6-10 are added which recite the features discussed above, but in method form. Therefore, it is submitted that new claims 6-10 are in condition for allowance as well.

V. CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.


Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 7-10-02

By: 
Jon H. Muskin
Registration No. 43,824

700 Eleventh Street, NW, Suite 500
Washington, D.C. 20001
(202) 434-1500

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:



RECEIVED
JUL 12 2002
TC-2800 MAIL ROOM

Please AMEND the following claims (all of the claims are listed below, whether or not amended):

1. (ONCE AMENDED) A printed circuit board design system for generating a 3D model of a printed circuit board which mounts a component on a printed board, and [for] performing[,] with a three-dimensional CAD system[,] a mounting design [including] which includes a cabinet, the system comprising:

a converter for converting the printed circuit board into one or more models based on attributes [preliminary] preliminarily added to the component.

2. (AS UNAMENDED) The printed circuit board design system as claimed in claim 1, wherein when one of the attributes is a mounting side, the converter converts the printed board and a component mounted on an L1 side into an L2 side portion model, and converts the printed board and a component mounted on an Ln side into an Ln side portion model.

3. (AS UNAMENDED) The printed circuit board design system as claimed in claim 1, wherein when one of the attributes is at least one of an arrangement and a fixation, the converter converts the component which is not arranged on the printed circuit board into an unarranged component model, and converts the component which is not fixed into a nonfixed component model.

4. (AS UNAMENDED) The printed circuit board design system as claimed in claim 1, wherein the converter converts the printed circuit board and the component into a library model related to one of the attributes.

5. (AS UNAMENDED) The printed circuit board design system as claimed in claim 1, wherein the converter converts the component into either a pseudo shape model or a detailed shape model.

Please ADD the following NEW claims 6-10:

6. (NEW) A method for generating a 3D model of a printed circuit board which mounts a component on a printed board, and performing with a three-dimensional CAD system a mounting design which includes a cabinet, the method comprising the operations of:

converting the printed circuit board into one or more models based on attributes preliminarily added to the component.

7. (NEW) The method as claimed in claim 6, wherein when one of the attributes is a mounting side, the converting operation converts the printed board and a component mounted on an L1 side into an L2 side portion model, and converts the printed board and a component mounted on an Ln side into an Ln side portion model.

8. (NEW) The method as claimed in claim 6, wherein when one of the attributes is at least one of an arrangement and a fixation, the converting operation converts the component which is not arranged on the printed circuit board into an unarranged component model, and converts the component which is not fixed into a nonfixed component model.

9. (NEW) The method as claimed in claim 6, wherein the converting operation converts the printed circuit board and the component into a library model related to one of the attributes.

10. (NEW) The method as claimed in claim 6, wherein the converting operation converts the component into either a pseudo shape model or a detailed shape model.